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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,000	02/18/2004	Moris Dovek	HT03-005	2422

7590 07/11/2006

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EXAMINER

KLIMOWICZ, WILLIAM JOSEPH

ART UNIT	PAPER NUMBER
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2627

DATE MAILED: 07/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/781,000

Applicant(s)

DOVEK ET AL.

Examiner

William J. Klimowicz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) 7-18 and 25-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 19-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restriction

Applicant's election with traverse of *Specie II*, corresponding to *Figure 4*, in the reply filed on June 29, 2006 is acknowledged. The traversal is on the ground(s) that, as stated by Applicant on page 2 of the aforementioned response:

The Examiner is respectfully requested to reconsider the Requirement for Election of Species given in the Office Action, because of the increased costs applicant would be forced to bear if the two species are separately examined. Furthermore, the field of search must necessarily cover both species, in addition to other related Classes and subclasses, to provide a complete and adequate search.

This is not found persuasive because the Examiner maintains that the Applicant did not traverse on the ground that the species are not patentably distinct. If the Applicant were to traverse on the ground that the species are not patentably distinct, the Applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. If the Applicant were to include such a statement, the election requirement would be withdrawn. In either instance, however, if the Examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. § 103 of the other invention.

The requirement is still deemed proper and is therefore made FINAL.

Moreover, the Applicant alleges that claims 13-18 and 31-36 are believed to be generic.

The Examiner notes that not only are claims 13-18 and 31-36 not generic, they are another Species that requires both the read lines AND the write lines to be crossed.

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The Applicant elected *Specie II*, corresponding to *Figure 4*, which exclusively depicts a species in which ONLY the write lines are crossed. Thus, since claims 13-18 and 31-36 are not drawn to Figure 4, they are withdrawn from consideration as also being drawn to a non-elected embodiment.

Thus, claims 7-18 and 25-36 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on June 29, 2006

Specification

The disclosure is objected to because of the following informalities:

With regard to page 2 (line 15-16), the Applicant may wish to consider deleting the phrase “(includes summary of 3 prior art dockets here).”

With regard to page 4 (line 13), the word “preamplifierlififier” should be spelled as the word --preamplifier--.

Appropriate correction is required.

Claim Objections

Claim objected to because of the following informalities:

With regard to claim 1 (line 9), the word “preamplifierlififier” should be spelled as the word --preamplifier--.

With regard to claim 19 (line 10), the word “preamplifierlifier” should be spelled as the word --preamplifier--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-6 and 19-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The following phrase(s) lack clear antecedent basis within the claim(s), i.e., either the particularly recited passage fails to be properly introduced prior to its appearance at that point in the claim or the structure recited in the passage is not an inherent part of or component of the previously recited structure:

- (I) Claim 1 (line 2-3), “said preamplifier connection point.”
- (II) Claim 1 (line 3), “said slider contact pads.”
- (III) Claim 2 (line 1), “said crossing point.”
- (IV) Claim 3 (line 1), “said crossing point.”
- (V) Claim 19 (line 3-4), “said preamplifier connection point.”
- (VI) Claim 19 (line 4), “said slider contact pads.”
- (VII) Claim 20 (line 1-2), “said crossing point.”
- (VIII) Claim 21 (line 1-2), “said crossing point.”

Additionally, since claims 4-6 and 22-24 depend directly or indirectly from claims 1 and 19, respectively, they too are thus rejected under the second paragraph of 35 U.S.C. § 112.

With regard to claims 3 (line 2) and claim 21 (line 2), the phrase “a second metallization layer” is vague and ambiguous. More concretely, the phrase implies that a first or preceding metallization layer has been recited, which is not the case.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6 and 19-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Carpenter et al. (WO 98/20485 A1).

As per claims 1 and 19, Carpenter et al. (WO 98/20485 A1) discloses a crosstalk and EME minimizing trace suspension assembly structure (16) and a method thereof, comprising: multiple write lines (e.g., 60, 62) which are crossed between a preamplifier connection point (at 54) and slider contact pads (22) (e.g., see, *inter alia*, page 7, line 12-23 and page 8, lines 20-29); multiple read lines (e.g., 60, 62 - see in particular page 8, lines 21-25) driven by pre-amplifier circuits (including 54); the aforementioned slider contact pads (22), which connect said write lines (60, 62) to said trace suspension assembly (16); the aforementioned slider contact pads (22), which connect said read lines (another set of service lines (60, 62) to said trace suspension

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assembly (16); and multiple write line driven by preamplifier circuits (at 54 via the semiconductor IC chip).

As per claims 2 and 20, wherein a crossing point of said write lines between said preamplifier connection point and said slider contact pads (22) is placed halfway between said preamplifier connection point and said slider contact pads (e.g., the multiple twisted wire effect of the traces allows at least one crossing point “halfway”).

As per claims 3 and 21, wherein said crossing point of said write line (60, 62) is made by the addition of a second metallization layer (e.g., 60A or 62A) onto said trace suspension assembly (16).

As per claims 4 and 22, wherein multiple crossing points of said write lines are used to further cancel out time-delayed (transmission line effects) parts of said crosstalk and EME (based on the crossover structure of the lines (60, 62)).

As per claims 5 and 23, wherein said write lines (60, 62) have parasitic capacitance between the write lines and the read lines (another set of service lines (60, 62), due to the intrinsic metal-dielectric-metal structure)..

As per claims 6 and 24, wherein said parasitic capacitances between the write lines (60, 62) and read lines other set of service lines, 60, 62) are used to cancel crosstalk noise between said write lines and said read lines due to the effective “twisting” structure of the traces.

Conclusion

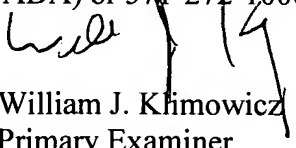
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to William J. Klimowicz whose telephone number is (571) 272-7577. The examiner can normally be reached on Monday-Thursday (6:30AM-5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Thi Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



William J. Klimowicz
Primary Examiner
Art Unit 2627

WJK